

**REVIEW OF THE  
CORRECTIVE ACTION STATUS REPORT  
JULY TO DECEMBER 2020  
HOVENSA ENVIRONMENTAL RESPONSE TRUST  
DATED MARCH 2, 2021**

**I. General Comments**

General Comment 1- Identifying and documenting leaks and repairs: Based on a discussion between the HOVENSA ERT and EPA on July 8, 2021, EPA's understanding is that only scheduled repairs of tanks and equipment have been included in Attachment 8 (Activities Conducted by Limetree Bay Terminals), and that there may have been other releases and repairs which are not accounted for in Attachment 8. Please note that according to Attachment III-4/5, Section A.5. of the 03-25-2015 modification to the RCRA Part B Operating Permit (originally issued 11-01-1999), *any repairs to product lines shall be documented and submitted to EPA in the CAS Report following such repair*. Additionally, please note that according to Attachment III-4/5, Section B.6 of that permit modification, *any repairs to oily water sewer lines (OWS) lines shall be documented and submitted to EPA in the CAS Report following such repair*. Finally, please note that Attachment III-4/5, Section C.8, *Any repairs [to tanks] shall be documented and submitted to EPA in the CAS Report following such repair*. Hence, please submit all records of releases and repairs to product lines, oily water sewer lines, and tanks in semi-annual Corrective Action Status reports.

Additionally, although newly identified contamination is being addressed in Section 3 (New Occurrences of PSH) of the report, the source of that contamination is not always clear. In future semi-annual reports, please also identify all newly identified sources of contamination.

**General Comment 2:** A bioremediation study was performed in Remediation Area (RAA) 6B and results provided in Attachment 7. Results indicate that methanogenesis in groundwater may be the predominant process in this area of the site. Examination of Figure 2.5 indicates that only two wells in this area are exploring the use of BaroBall™ technology. It is unclear why more wells were not identified for trying to explore the use of this technology. It is also unclear why the study did not include an evaluation of vadose zone gases as a means to assess the potential for enhancing biodegradation in the vadose zone (please see Specific Comment 2, below for more details). Please provide additional detail as requested and proposed next steps to be taken to improve the ongoing corrective action activities.

General Comment 3: Attachment 7 (Monitored Natural Attenuation (MNA) in RAA 6B) provides data for evaluating the natural attenuation potential for the aquifer. The conclusion is that although the chemical environment may support biodegradation, ongoing monitoring and a trend analysis would be required to determine the extent to which MNA processes may be currently occurring. Please note that an approved updated QAPP will be needed prior to collecting this data, to support the integrity of the data collected. EPA cannot accept the ERT's conclusions regarding the efficacy of MNA at the site, without an approved revised QAPP. Additionally,

since QAPPs normally should be updated every 5 years, a revised site-wide QAPP is indicated for the sitewide sampling and analysis activities at the former HOVENSA Site. Please use the Uniform Federal Policy for Quality Assurance Project Plans (last updated 2012) for updating the QAPP. The following is a link to the current UFP QAPP guidance:

<https://www.epa.gov/fedfac/assuring-quality-federal-cleanups>

## **I. Specific Comments**

***Specific Comment 1: Section 2.1, Page 9, 3rd paragraph.*** In this paragraph it is noted that the ERT vacuum truck was taken out of service in November 2020 due to multiple and significant mechanical issues and safety risks. While the vacuum truck was out of service, some vacuuming was proposed using the Limetree's fleet of vacuum trucks. Based on a review of Table 2.4 it is unclear which trucks were used for what vacuuming activities and how many events originally proposed were missed and how future vacuuming events will be addressed. Any future vacuum efforts should also include removal rates and data. In the upcoming CAS Report, please indicate how the revised vacuuming events were conducted during the period ending June 30, 2021. Additionally, as an update, an email message from the ERT to EPA dated June 29, 2021, indicated that a replacement truck recently arrived on-site and that the vendor flew down to provide training on its use. Please document this in the next semi-annual CA status report, even though EPA understands that vacuuming from this replacement truck would not be addressed until the following semi-annual period.

***Specific Comment 2: Section 2.1, Page 9, 4<sup>th</sup> paragraph.*** In this section it is noted that the Baroballs™ [sic] is being used for barometric bioventing. However, it is unclear what this means as BaroBall™ technology is generally used for passive soil vapor extraction and enhancing in situ bioremediation. According to the manufacturer, for BaroBall™ to work as a passive vapor extraction tool the inside well pressure differences need to be 7 to 10 millibars above atmospheric pressure before the valves are triggered to open in a passive venting mode. As no barometric pressure difference data is provided in the CAS Report or the associated attachments, it is assumed that the BaroBall™ technology is being used to shut in well gases at the site. Please expand on this and verify whether this is a correct assumption. In addition, it is unclear why the bioremediation study did not consider the collection of soil gas data. Given that the BaroBall™ technology is already being employed on site, biodegradation assessment should be expanded to include soil gas data with this data used to evaluate the potential for the employing enhanced bioremediation methods. Please provide future steps to be employed that include assessment of soil gas for the assessment of bioremediation.

***Specific Comment 3:*** EPA recognizes that Attachment 1, Figure 1.1 includes a site location map, showing where the facility is located within the Island of St Croix, is included in Attachment 1, For ease in locating this figure, it also should be included within the *Figures* section accompanying the main document.